TECHNICAL REVIEW AND EVALUATION OF APPLICATION FOR AIR QUALITY PERMIT NO. 42257

I. INTRODUCTION

This renewal permit is for renewal of general permit #35011 for the operation of a Crushing & Screening plant (C&S) by Western Mining & Materials, Inc. This facility is located in the mine area in Black Rock, Mohave County, Arizona.

Company Information

Mailing Address P.O. Box 850,

St. George, UT 84771

Facility Address 36° 94' 22"/ 113° 63' 19"

Black Rock, Mohave County, AZ

II. FACILITY/PROCESS DESCRIPTION

A. Process Description

Crushing and Screening

The crushing & screening operations at Western Mining & Materials comprise of two lines, line B and line D. Line B comprises of one grizzly vibrating feeder, two vibrating screens, a jaw crusher, and a triple roll crusher. Line D comprises of three hoppers, two pan feeders, a grizzly feeder, four vibrating feeders, 19 conveyor belts, a jaw crusher, a horizontal 3-deck screen, a horizontal 2-deck screen, a cone crusher, four stackers, a surge pile, and 3-stock piles.

Line B operates for 10 hours a day, four days a week. Line D has two circuits, primary and secondary. Primary circuit comprises of jaw crusher and operates for 10 hours a day, four days a week. Secondary circuit comprising of cone crusher operates one 10-hour shift per day, four days a week.

Operating hours are increased depending on the requirement of additional capacity.

The operations at the facility are supported by 2 diesel generators (350 HP and 500 HP).

B. Air Pollution Control Equipment

Dust suppression is handled through the use of both water trucks and spray bars. The Permittee uses spray bars for controlling emission of dust from operation of crushers, screens, transfer points, and stackers. The water truck routinely targets the haul road and service roads in addition to wetting down any storage piles, if needed.

III. Potential-to-Emit (PTE) and Synthetic Minor Limitations

Facility wide potential to emit for Western Mining & Materials is tabulated in Table 1.

Table-1: Facility wide Emissions

Pollutant	PTE (Statewide)	
	tons per year	
PM_{10}	26.90	
CO	24.87	
NO_x	115.71	
SO_2	7.63	
VOCs	9.20	

Synthetic minor limitations for hours of operation are as detailed in Table 2 below.

Table-2: Synthetic Minor Limitation

Pollutant	PTE	Annual Operating
	tons per year	Hours
PM_{10}	24.87	
CO	26.90	
NO_x	115.71	6831.12
SO_2	7.63	
VOCs	9.20	

In order to stay below major source threshold, source is willing to limit the hours of operation to 6830 hours a year.

Facility wide potential to emit under synthetic minor limitations for Western Mining & Materials is tabulated in Table 3.

Table-3: Emission under Synthetic Minor Limitations

	PTE
Pollutant	tons per year
PM_{10}	20.97
CO	19.39
NO_x	89.98
SO_2	5.95
VOCs	7.17

IV. APPLICABLE REGULATIONS

Table-4: Verification of Applicable Regulations

Unit	Date of Manufacture	Control Device	Rule	Verification
Crushing and Screening operations	Pre-1983	Water Sprays/Water Truck.	A.A.C. R18-2-722, A.A.C. R18-2-702	R18-2-722 regulates emissions from crushing & screening plants. R18-2-702 contains opacity limits for point sources.
Crushing and Screening operations	Post-1983	Water Sprays/Water Truck.	40 CFR 60, Subpart OOO	The screens, crushers and conveyors, etc. are subject to the applicable NSPS requirements outlined in 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants.
Generators	N/A	N/A	R18-2-719	This standard applies to all stationary rotating machinery
Fugitive dust sources	N/A	Water and other reasonable precautions.	Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources.
Mobile Sources	N/A	Water Sprays/Water Truck for dust control	Article 8	This Article is applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.
Spray painting operations	N/A	N/A	A.A.C. R-18-2-727,	This standard is applicable to any spray-painting operation.
Demolition/renovation operations	N/A	N/A	A.A.C. R18-2- 1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.

V. MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- a. The Permittee is required to conduct a monthly survey of visible emissions emanating from the crushing & screening plant equipment at the facility. If the opacity of the emissions observed appears to exceed the opacity limit, the observer must conduct a certified EPA Reference Method 9 observation. The Permittee is required to keep records of the initial survey and any EPA Reference Method 9 observations performed. If the observation results in an exceedance of the opacity limit, the Permittee is required to take corrective action and log all such actions. Any exceedance must be reported to ADEQ as an "excess emission".
- b. The Permittee is required to conduct a quarterly EPA Reference Method 9 observation of emissions emanating from the crushing & screening plant equipment at the facility. Permittee is required keep a record the results of the observation. If the observation

results in an exceedance of the opacity limit, the Permittee is required to take corrective action and log all such actions. Any exceedance must be reported to ADEQ as an "excess emission".

- c. The Permittee is required to conduct a monthly visual survey of the fugitive emissions from any point source in the facility. If any observation appears to exceed the opacity standard, the Permittee must conduct and record a proper Method 9 observation. If this observation is in excess of the opacity standard, suitable corrective action shall be taken and also reported to ADEQ as an "excess emission".
- d. The Permittee is required to conduct monthly surveys of visible emissions from the internal combustion engine stacks. If any observation appears to exceed the opacity standard, Permittee shall conduct and record a proper Method 9 observation. If this observation is in excess of the opacity standard, suitable corrective action shall be taken and also reported to the agency as an "excess emission".
- e. The Permittee is required to maintain records of fuel supplier certification document showing the name of the fuel supplier, the typical heating value of the fuel, and the maximum sulfur content to demonstrate compliance or a letter from fuel supplier stating sulfur content and typical heating value of fuel.

VI. LIST OF ABBREVIATIONS

A.A.C	
ADEQ	Arizona Department of Environmental Quality
CO	
HP	
NO _x	
PTE	Potential-to-Emit
SO ₂	
	Volatile Organic Compound

4 of 4